

Date: Monday, 6/25/2007 9:10:08 AM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : WEARPLATE
Job Number : 33113	
Estimate Number : 10606	
P.O. Number : N/A	Part Number : D33193
This Issue : 6/25/2007 S.O. No. : N/A	Drawing Number : D3319 REV. B
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : SMALL /MED FAB	Drawing Revision : B
Previous Run : 31612	Material : N/A
Written By : <u>[Signature]</u>	Due Date : 7/10/2007 Qty: 10 Um: Each
Checked & Approved By : <u>[Signature]</u> 07.06.25	
Comment : Est: AC 05.05.12 New issue KJ/JLM	
Est Rev:B Now on Waterjet 06-10-03 JLM	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M1010S18GA	1010/1025/A21/6aA SHEET .048
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Comment: Qty.: 3.4150 sf(s)/Unit Total : 34.1502 sf(s)

1010/1025/A21/6aA SHEET .048" Thick

Batch: M105084 (7) M105184 (7) SAP 07/08/03

2.0	WATER JET
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FLOW WATER JET  
 Scrap (4)



Comment: FLOW WATER JET

1-Cut as per Dwg D3319

Dwg Rev: B

Prog Rev: B

2-Deburr if necessary

SAP 07/08/03

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

SAP 07/08/03

4.0	QC8	SECOND CHECK
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Comment: SECOND CHECK

En 07/08/07

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

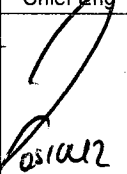

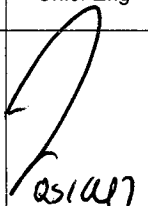
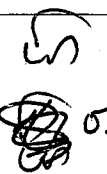
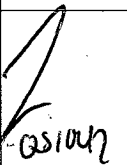

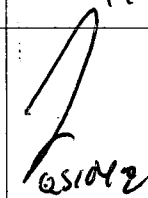
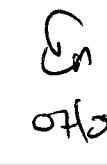
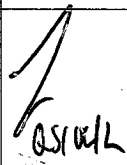

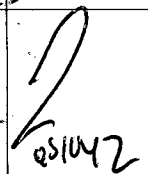
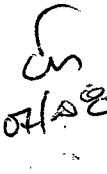
Deburr if necessary

07/08/13

[Signature]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: R Date: 07/08/07  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07/08/07	2.0	Scrap one part because of power outage machine did not finish Part		Scrap, destroy replace	SAP 07/08/07			
07/08/07	2.0	upon inspection found 2 parts with cuts out at pin end. R.C parts moving		Scrap and destroy and replace	SAP 07/08/07			
07/08/07	2.0	1 Part moved when water jet was cutting, R.C parts moving		Scrap and destroy and replace	SAP 07/08/07			

NOTE: Date & initial all entries

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARPLATE

Job Number: 33113

Part Number: D33193

Job Number:



Seq. #:

Machine Or Operation:

Description:

6.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

Form using DT8326 & DT8261 as per Dwg D3319 Rev: B

SB 07/02/23

(10)

7.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

SB 07/06/23 (10)

8.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld hard surface using D3319-3T2 per QSI 004 and Dwg D3319 Rev: P

Qty Part Number Description

Batch

A/R N/A 7560 Hardcoat Rod

M1048SS

FC 07/09/20 (10)

9.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

SB 07/09/20 (10)

10.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

FL 07/09/20

(10)

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

SB 07/09/21 (10)

12.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify on inside surface using a permanent fine point marker with the following:

TCCA-PDA, Dart Aerospace Ltd.

P/N: D3319-3, B/N: BXXXXX

For Product Eligibility see PDA05-18

and Stock

Location: \_\_\_\_\_

SB 07/09/21 (10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 6/25/2007 9:10:08 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARPLATE

Job Number: 33113

Part Number: D33193

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

QC21

FINAL INSPECTION/W/O RELEASE



(15)

Comment: FINAL INSPECTION/W/O RELEASE

DRK/24

Job Completion



6 07-09-24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

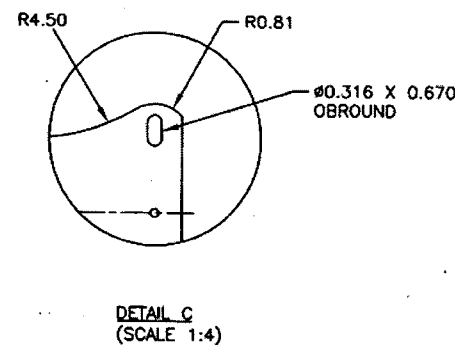
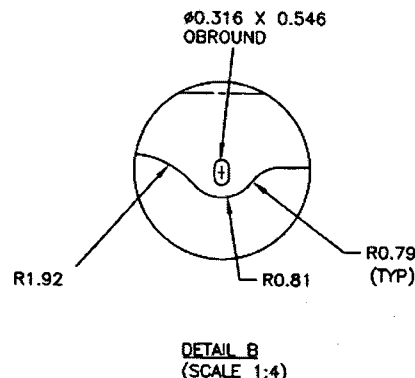
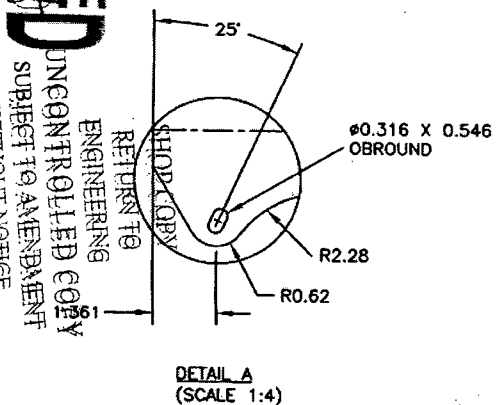
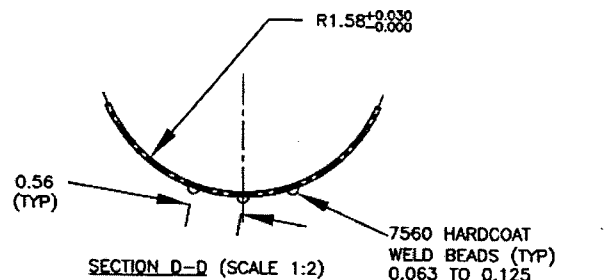
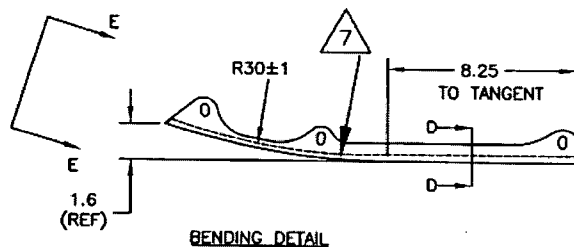
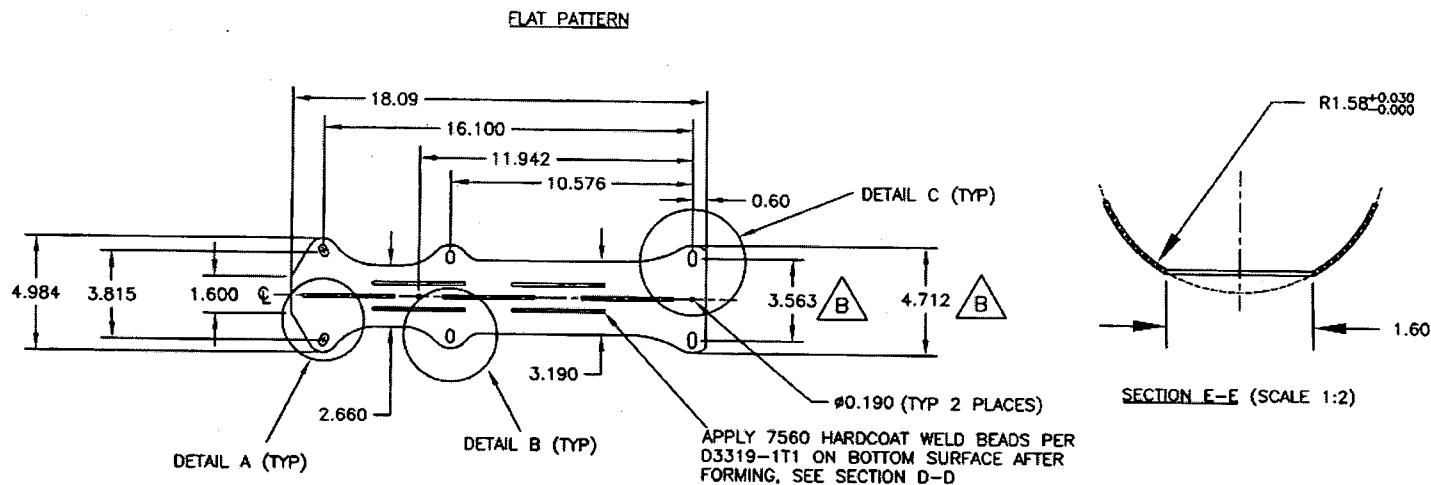
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QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**DART**



**D3319-1 WEARPLATE**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:  
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-1 B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-18"

DESIGN	DRAWN BY	DART AEROSPACE LTD
P1	P1	HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
		D3319
DATE	TITLE	SCALE
05.06.06	WEARPLATE	1:8
REV	DATE	DESCRIPTION
A	04.09.24	NEW ISSUE
B	05.06.06	WIDEN HOLES, REDUCE WIDTH -3/-5/-7

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SUBJECT TO AMENDMENT  
WITHOUT NOTICE

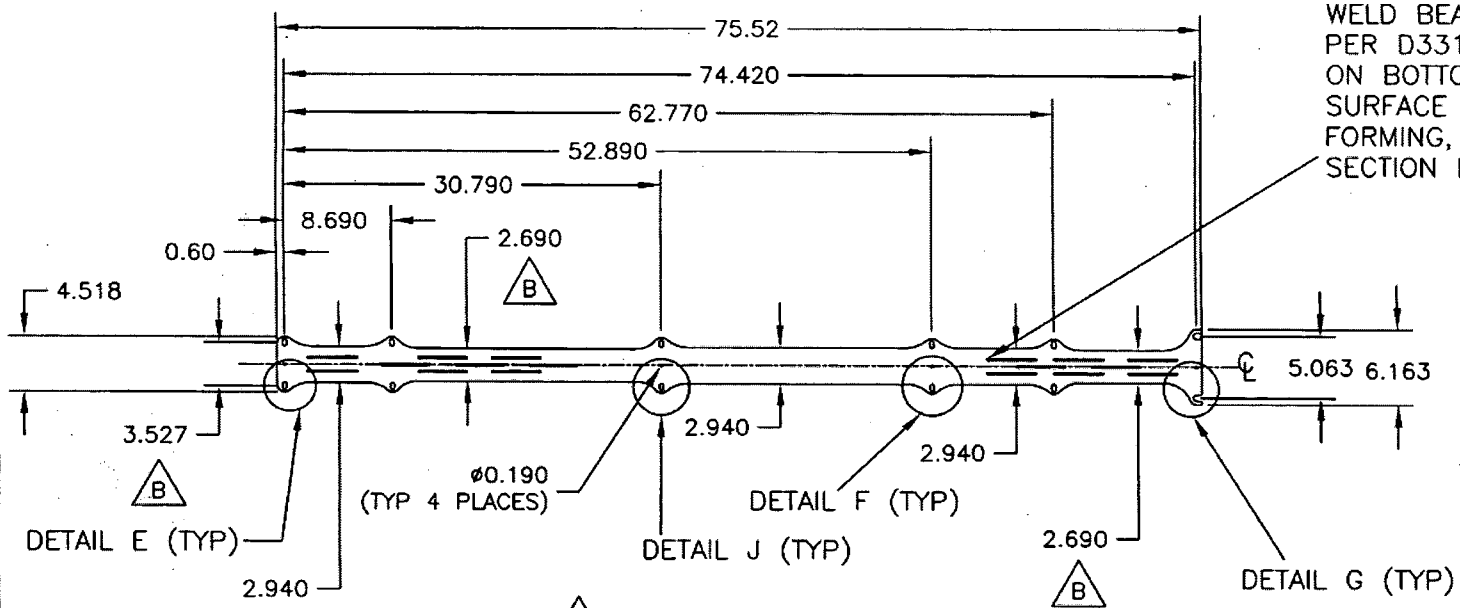
WORK ORDER  
3313



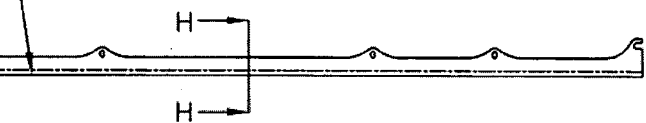
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CHECKED	[Signature]	APPROVED	[Signature]	HAWKESBURY, ONTARIO, CANADA
DATE	05.06.06	TITLE	D3319	REV. B
		WEARPLATE		SHEET 2 OF 5
				SCALE 1:15

APPLY 7560  
HARDCOAT  
WELD BEADS  
PER D3319-3T1  
ON BOTTOM  
SURFACE AFTER  
FORMING, SEE  
SECTION H-H

FLAT PATTERN



7



BENDING DETAIL

RELEASED  
05.07.30

D3319-3 WEARPLATE

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:  
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-3 B/N BXXXXX,  
FOR PRODUCT ELIGIBILITY SEE PDA05-18"

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WORK ORDER  
33113

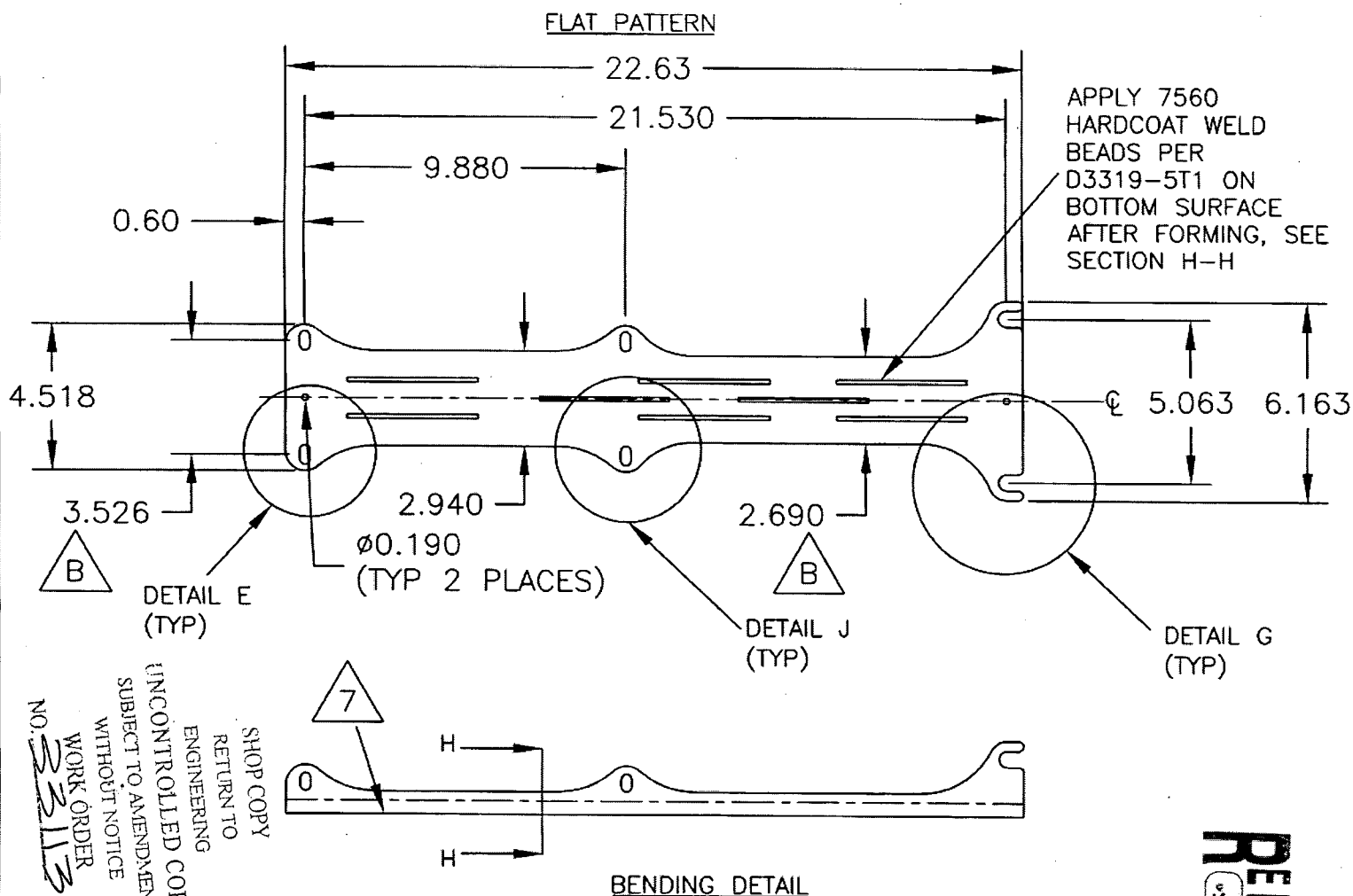
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**DART**

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041	044	HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. B
		D3319	SHEET 3 OF 5
DATE		TITLE	SCALE
05.06.06		WEARPLATE	1:5



### D3319-5 WEARPLATE

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:  
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-5 B/N BXXXXX,  
FOR PRODUCT ELIGIBILITY SEE PDA05-18"

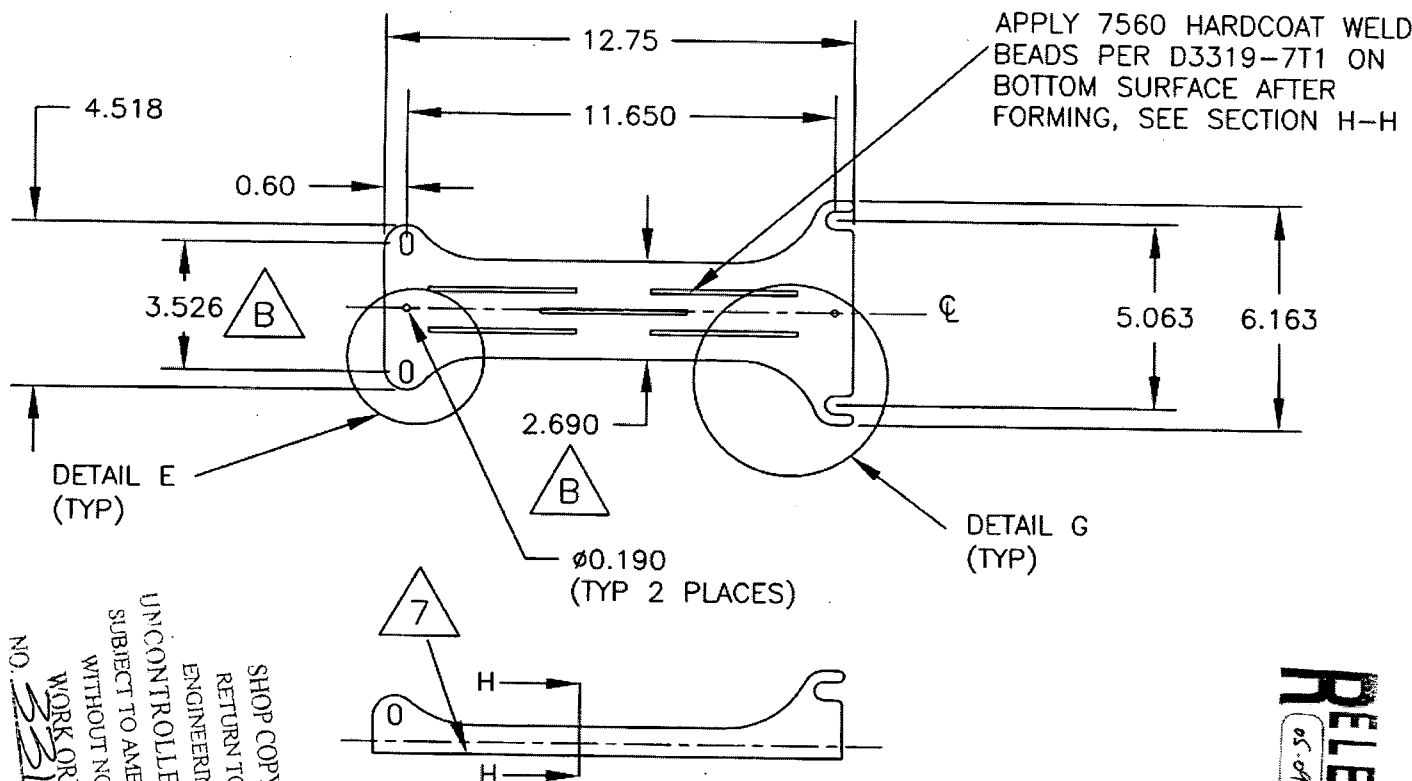
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05-07-30

**DART**

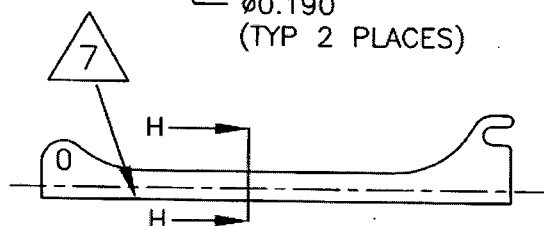
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CHECKED	<i>[Signature]</i>	APPROVED	<i>[Signature]</i>	DRAWING NO.	D3319
DATE	05.06.06	TITLE	WEARPLATE	REV. B	SHEET 4 OF 5
		SCALE	1:5		

**RELEASED**  
05-09-30-11

FLAT PATTERN



BENDING DETAIL



D3319-7 WEARPLATE

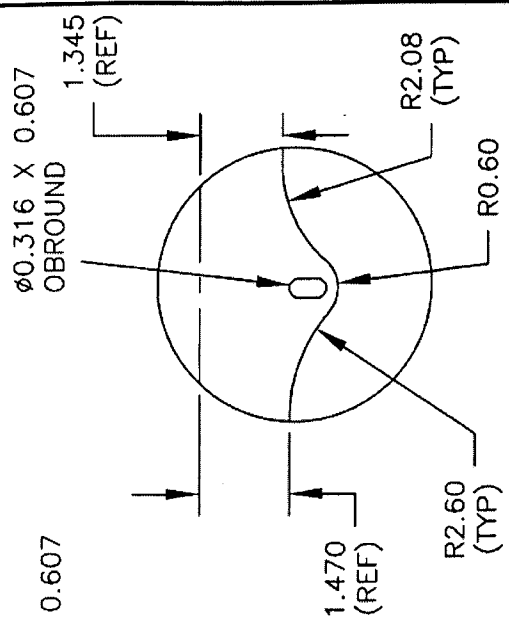
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- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:  
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-7 B/N BXXXXX,  
FOR PRODUCT ELIGIBILITY SEE PDA05-18"

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WORK ORDER  
NO. *[Signature]*

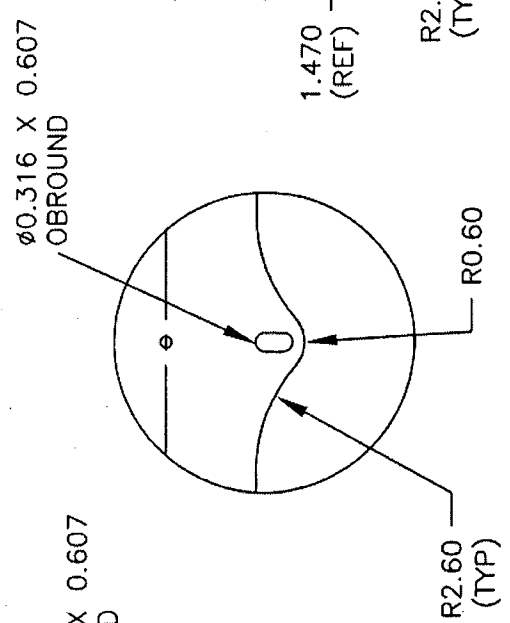


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DATE 05.06.06	TITLE WEARPLATE		SCALE 1:3

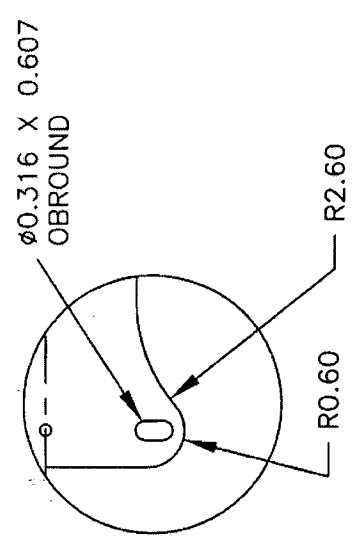
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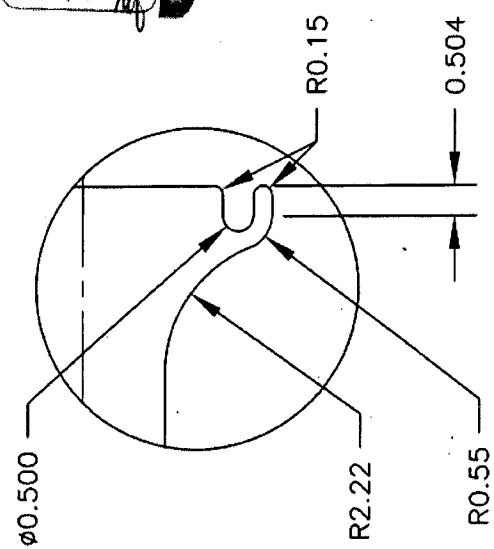
**DETAIL J**



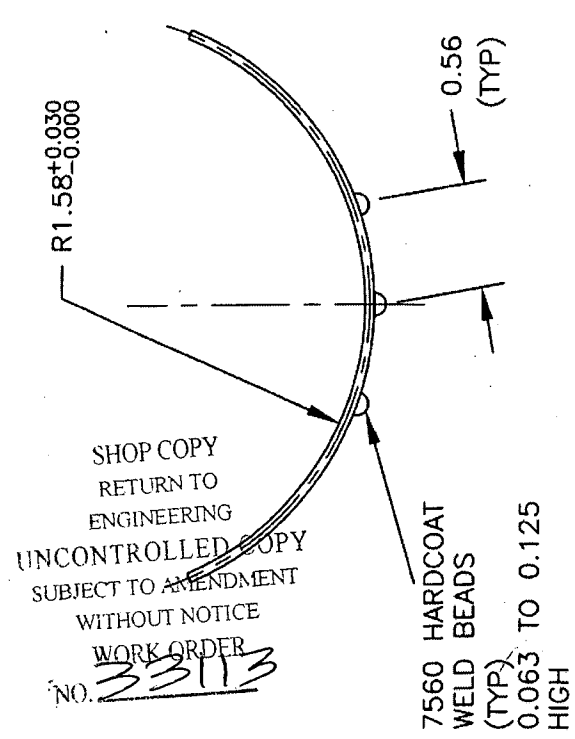
**DETAIL F**



**DETAIL E**



**DETAIL G**



**SECTION H-H  
(SCALE 1:1)**

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WORK ORDER  
NO. 33113

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DART AEROSPACE LTD		Work Order: 33113
Description: WEARPLATE		Part Number: D33193
Inspection Dwg: D33193 Rev: B		Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
75.52	+/-0.030	75.50	✓		M-T	
74.420	+/-0.010	74.42	✓		M-T/Vern	
62.770	+/-0.010	62.770	✓		M-T/Vern	
52.890	+/-0.010	52.890	✓		M-T	
30.790	+/-0.010	30.780	✓		M-T/Vern	
0.60	+/-0.030	0.60	✓		Vern	
8.690	+/-0.010	8.680	✓		M-T/Vern	
2.690	+/-0.010	2.698	✓		Vern	
4.518	+/-0.010	4.520	✓		Vern	
3.527	+/-0.010	3.529	✓		Vern	
2.940	+/-0.010	2.950	✓		Vern	
2.690	+/-0.010	2.697	✓		Vern	
5.063	+/-0.010	5.069	✓		Vern	
6.163	+/-0.010	6.160	✓		Vern	
0.316 x 0.607	+/-0.010	0.314 x 0.608	✓		Vern	
Ø0.190	+0.005/-0.001	0.191	✓		Vern	

Measured by: SAO	Audited by:	Prototype Approval:
Date: 07/08/03	Date:	Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	